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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,329	10/16/2003	Lizhang Yang	59093US002	8504
32692	7590	06/29/2006	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			LE, THANH TAM T	
			ART UNIT	PAPER NUMBER
			2839	

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/687,329

Applicant(s)

YANG ET AL.

Examiner

Thanh-Tam T. Le

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-15 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-4 and 11-15 are rejected under 35 U.S.C. 102(a) as being anticipated by Suematsu et al. (6,623,175).

Suematsu et al., figure 2 shows an optical interconnect device comprising:

- a plurality of fiber optic cables (10) having two ends and comprising a plurality of optical fibers (12) each surrounded by a protective jacket (11), wherein a diameter of each fiber optic cable is larger than a diameter of the each optical fiber and wherein the protective jacket of at least a first end of the each fiber optic cable has been removed thereby exposing the optical fibers;
- a ribbonized assembly (2) encasing a portion of the first ends of the fiber optic cables and first ends of optical fibers, wherein the fiber optic cables lie in a first plane and occupy an input zone, the fibers lie in a second plane substantially parallel to the first plane and occupy an output zone, the cable and fibers both occupy a transition zone in which the fibers are non-parallel, and the optical fibers in the output zone lie parallel to one another and has a first pitch; and

- a ferrule (3) attached to the ribbonized assembly, the ferrule having a plurality of internal grooves (9) having a second pitch;

wherein the first pitch of the optical fibers is substantially equal to the second pitch of the ferrule.

Regarding claim 2, the optical fibers in the ribbonized assembly are nearly touching one another.

Regarding claim 3, the ribbonized assembly is of a geometry that will not violate the minimum bend radius of the optical fiber.

Regarding claim 4, the fiber optic cable is a tight buffer fiber cable.

Regarding claim 11, the protective jacket on both ends of the fiber optic cable has been removed to expose the optical fibers.

Regarding claim 12, the ferrule is terminated to a MT connector.

Regarding claims 13 and 14, the second end of the fiber optic cable is terminated to an optical device, the optical device is a simplex v-groove.

Regarding claim 15, the ribbonized assembly is straight.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suematsu et al. (6,623,175).

Suematsu et al. disclose the instant claimed invention as described above except for the ribbonized assembly comprising an ultraviolet light curable resin. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Suematsu et al. to have the ribbonized assembly comprising an ultraviolet light curable resin, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice. In re Leshin, 125 USPQ 416.

5. Claims 7-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suematsu et al. (6,623,175) in view of Maenishi et al. (5,905,829).

Suematsu et al. disclose the claimed invention as described above except for non-active fibers disposed adjacent to the optical fibers.

Maenishi et al., figure 1 shows an optical fiber connecting structure having a dummy fiber 2Z reads as a non-active fiber. It would have been obvious to one with ordinary skill in the art at the time the invention was made to provide Suematsu et al. to have the dummy fiber, as taught by Maenishi et al., in order to have more convenience and to protect the structure.

Regarding claim 8, it is noted that Maenishi et al. disclose the non-active fibers are of the same construction as the optical fibers.

Regarding claim 10, it is noted that Maenishi et al. disclose the optical fibers are disposed between the non-active fibers.

Allowable Subject Matter

6. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is an examiner's statement of reasons for allowance:

The prior arts of the record fail to teach or suggest the non-active fiber are disposed between the optical fiber.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

8. Applicant's arguments filed 4/7/06 have been fully considered but they are not persuasive.

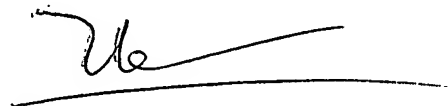
Applicant argues that molded plastic member (1) of Suematsu et al. can't be characterized as part of the ribbonized assembly. The Examiner disagrees, since the molded plastic member (1) has all the limitations have been disclosed in the claim for ribbonized assembly; therefore, it could be the ribbonized assembly.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh-Tam T. Le whose telephone number is 571-272-2094. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TC Patel can be reached on 571-272-2098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thanh-Tam T. Le
Primary Examiner
Art Unit 2839

TL.
06/26/06.